

ABSTRACT

The present invention provides an actuator element which functions stably in air and in vacuo, and can be driven at low voltages.

5        The present invention provides an actuator element wherein at least two electrode layers 2, each of which is mutually insulated and comprises a gel composition comprising carbon nanotubes, an ionic liquid and a polymer, are formed on the surface of ion-conductive layer 1 comprising a gel

10      composition comprising an ionic liquid and a polymer, so that the actuator element is capable of being flexed or deformed by creating a potential difference between the electrode layers; and an actuator element wherein at least two electrode layers 2, each of which is mutually insulated, are formed on the surface of ion-

15      conductive layer 1, conductive layer 3 is formed on the surface of each electrode layer 2, and the actuator element is capable of being flexed or deformed by creating a potential difference between the conductive layers.